PALÆONTOLOGICAL NOTES.

By H. A. Longman (Director).

Notable additions have been made to the series of vertebrate fossils in the Queensland Museum as the result of a collecting trip by Mr. J. Edgar Young, Honorary Collector, in the Hughenden district, North-western Queensland, in April and May of this year. This preliminary note on some of the specimens received may be amplified later.

ICHTHYOSAURUS AUSTRALIS.

Although numerous fragments of Ichthyosaurians had been received from time to time from localities in Cretaceous areas near Hughenden, no significant associated material had been collected. Mr. Young was fortunate in discovering on Telemon Station the greater part of a complete skeleton. He notes that this was found " in shaley ground one mile eastward of the Telemon homestead in a paddock on hill towards the woolshed." A small exposed fragment was fortunately noticed and the remainder of the fossil was excavated.

This skeleton is approximately eighteen feet in length. Practically all of the vertebræ appear to be preserved, although the series was somewhat disrupted when found. The skull is about four feet six inches in length, the extreme tip being missing. This skull has been obliquely crushed with intense lateral pressure from the right side, resulting in great displacement of the elements behind the rostral portion of the jaws.

Although many fragments of ribs are present, these are much broken and abraded. Much of the skeleton is at present largely involved in matrix, including the remains of numerous bivalves. The skull is apparently of the same species as that described in detail by the writer in 1922[1].

Portion of one of the anterior limbs is exposed. The whole region of the pectoral girdle, however, is much distorted and involved in matrix. An incomplete humerus and radius and ulna with adjoining elements have been partly cleaned. The radius and ulna are not elongated. The distal ends of these bones are recessed medially for a prominent intermedium. Additional breadth is given by a pisiform, which also articulates with the humerus. Only the proximal elements of the paddle can be precisely allocated, but it is obvious that this is of the Latipinnate type of the family Ichthyosauridæ and not of the Stenopterygiidæ.

It is hoped that other significant features will be revealed when matrix is cleared from the skeleton.

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[1] H. A. Longman, Mem. Qld. Mus., Vol. VII., pp. 246–256.

KRONOSAURUS QUEENSLANDICUS.

Mr. Young also collected on Telemon very massive fragments of this gigantic Pliosaur, first described by the writer in 1924, with additions in 1930 and 1933.[2]

The largest specimen from Telemon consists of the central part of a skull, including the orbits and portions of the post-temporal fossæ. The upper and lateral portions of this fragment have been greatly abraded, and the outer part of the left maxilla has disappeared to such an extent that the alveolar portions of the massive teeth are fully exposed. Some portions of the teeth had been removed as curiosities, having been chipped away.

Many hundredweights of massive fragments belonging apparently to this species were collected by Mr. Young in three localities on Telemon. These specimens include other cranial fragments, portions of mandibular elements, vertebræ and incomplete bones not yet identified. Apparently these valuable specimens represent at least two and probably three individuals. Unfortunately, most of these fragments have long been subjected to surface weathering and the contours are partly obscured. None the less, when cleared of matrix (a process that will entail months of careful work), these massive remains will add greatly to our knowledge of this gigantic marine reptile.

From the fragments preserved in the alveolar cavities of the mandibular symphysis of the original type specimen, it was suggested that the larger teeth of the series would attain " at least 250 mm.," the maximum alveolar diameter being 40 mm. In one of the Telemon specimens, however, the diameter of an alveolus is no less than 55 mm., which shows that some of larger teeth exceeded this estimate.

It is of interest to recall that in 1932 Mr. W. E. Schevill secured for Harvard a magnificent skeleton of *Kronosaurus*, collected at Army Downs, in the Richmond district. About five tons of material were obtained, and this will doubtless be described in detail later.

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In 1929 a list of records of vertebrate fossils from new localities was given by the writer (Mem. Qld. Mus., Vol. IX., pp. 250-251). The following are additional records of new localities or of specimens of special interest.

Megalania prisca.—A single vertebra, found on a creek at Sandhurst Park, Fernlees, 187 miles west of Rockhampton, was presented in 1932 by Mr. J. Garvey. (F. 2291.) This is a large vertebra from the dorsal region. In 1924 a vertebra was recorded from Marmor Quarry, 24 miles south of Rockhampton, but the remainder of our specimens come from Diprotodon beds on the Darling Downs. Unless the

[2] H. A. Longman, Mem. Qld. Mus., Vol. VIII., Part 1 ; Vol. X., Parts 1 and 2.

tail of this giant lizard was relatively short in comparison with the "goannas" of to-day, including the largest living monitors found at Komodo, it probably attained over twenty feet in length. The vertebræ of *Megalania* and *Varanus* have been described in great detail by the late Baron G. J. de Fejervary (Annales Musei Nationalis Hungarici, XXIX. 1935).

Diprotodon australis.—A fragment of a lower jaw of this large marsupial was picked up in the bed of Fletcher's Creek, about four miles from the Logan Downs Station, near Clermont, and presented by Mr. H. W. Eite, through Mr. H. R. Deane, Land Commissioner. (F. 2339). A fragment of a *Nototherium* mandible, also found near Logan Downs, was recorded in 1929.

Diprotodon australis.—Incomplete worn molar teeth found on the left bank of the Sellheim River, south-west of Bowen, have been presented by Mr. F. M. Hutton. (F. 2250.) These were found one mile from the junction with Percy Douglas Creek.

Diprotodon australis.—A fragment of a femur, found near embankment of a dam on a watercourse at Cooromon, Boyneside, *via* Kingaroy, was presented in May, 1933, by Mr. A. Slater. (F. 2319.)

Diprotodon australis.—A molar found at mud springs, near Eulo, in the Cunnamulla district, was sent in by Mr. G. C. Clark. (F. 2131.)

Diprotodon australis.—We are indebted to Dr. F. W. Whitehouse, Hon. Palæontologist, for a massive maxillary fragment, with remains of molars, found in the Diamantina River at Birdsville. (F. 2419.)

Diprotodon australis.—Mr. Thomas Jack, Dalby, presented a specimen consisting of remains of a palate of a very old Diprotodon ; only the second molars on each side are in position and these are worn almost to the roots. This was found at Ranges Bridge, Condamine River, some fifteen miles west of Dalby. (F. 2346.)

Plesiosaurus spp.—Many vertebræ and fragments attributed to this genus, used in the broad sense, have been received from Western Queensland and they are the vertebrate fossils most frequently collected. Unfortunately, the material has not been sufficiently significant to enable a local worker to make adequate comparisons with other species or even genera. Two species, *Plesiosaurus macrospondylus* and *P. sutherlandi*, were very concisely described by McCoy in 1867, but little has been published since, apart from the records by Jack and Etheridge in the "Geology and Palæontology of Queensland," 1892, pp. 508-10. Hundredweights of vertebræ, some in associated series, have been received during the last twenty years at the Queensland Museum, in addition to remains in the old collection.

A series of 24 associated vertebræ collected in the Flinders River, near Richmond, was presented through Mr. G. E. Blake. (F. 2085.) Another series of vertebræ with other fragments, mostly embedded in matrix, found at "Caithness," Dartmouth, was collected and presented by Mr. A. B. Cribb. (F. 2100.) About ten

vertebræ from Baneda, *via* Augathella, were presented by Mr. George S. Martin. (F. 2329.) Seven incomplete vertebræ from Ashgrove, near Brixton, Barcaldine, were collected and presented by Messrs. H. A. Craig and C. Loft. (F. 2178.)

The typical dorsal vertebræ have centra about 80 to 95 mm. in length. These centra are somewhat constricted in the middle, and their transverse and vertical diameters are subequal. In well-preserved specimens the maximum diameter is about 105 mm.

Howchin has figured cervical vertebræ from "the Cretaceous beds of the Neales River, north-westward of Lake Eyre," which are very similar to some of our cervical specimens (Handbooks of the Flora and Fauna of South Australia, "The Building of Australia," Part II, 1928, p. 320).

Fragments from the shoulder-girdle are associated with the "Caithness" fossils, but these have not yet been freed from matrix.

As previously mentioned, the generic term *Plesiosaurus* is only applied in the wide sense, and, when better known, these fossils will probably need distinctive generic recognition. D. M. S. Watson has noted that *Elasmosaurus* occurs in Queensland (P.Z.S., 1924, p. 885). Judging from the vertebral characters outlined by Watson, these fossils belong to the "small-headed, long-necked Plesiosaurs."

Only one small cranial fragment has been received, and this, although much abraded and involved in matrix, shows portions of maxillary bones with remains of small teeth projecting obliquely. This was collected by Mr. J. Edgar Young on Telemon Station during his recent trip. (F. 2448.)

"Plesiosaur."—From Mount Abundance, near Muckadilla, South-western Queensland (Roma Series), we have received fragmentary material representing a large Plesiosaur. This includes a fragment of a paddle, presented by Mr. R. J. Bumpton. This interesting specimen, which is embedded in matrix, shows massive, elongated phalanges, some of which are over 70 mm. in length. These phalanges are constricted in the middle and they are oval in section. (F. 2242.) Other specimens, said to be from the same fossil, were presented by Mr. William Schmid through Dr. H. I. Jensen, who informs me that this Mount Abundance discovery was in Portion 32, Parish of Norman. Associated with the fossils was a deposit of water-worn pebbles, one to three inches in diameter, forming a nest near the actual bones.

Notochelone costata.—We are indebted to Mr. Ulick Browne for a fairly complete carapace of this chelonian, which was discovered at Garomna, Julia Creek, North-western Queensland. (F. 2174.)

[End of Volume X, Memoirs of the Queensland Museum.]